Aneroid Determinations.

On June 13, 1904, Governor Bolton provided me with two first class aneroid barometers, reading up to 20,000 feet without adjustment.

These two instruments were set at Zero (0) at mean tide-water, at Tagulaya, at 7 o'clock, A. M., June 15, 1904.

One instrument was given over to the charge of Senor , who recorded readings at 8 A. M., 12 M., and 4 P. M., daily from June 15, 1904, at 8 A. M. to to June 23, 1904, at 8 A. M. at Tagulaya, on the shore of the Gulf of Davao. All time pieces used were corrected and set together at 7 A. M. June 15, 1904. All were ordinary watches, which varied so little during the period of the observations that no correction was considered necessary. Senor check aneroid readings are attached hereto.

Mount Apo Aneroid Readings.

	Date	Hour	Feet.
Tagulaya, at mean tide-water, Gulf of Davao	June 15, 1904,	6 a.m.	0000
" " " " " "	"	7: a.m.	0000
Upper edge of coconal, W.W. Apo Trail	June 15, 1904, at	9:45 a.m.	1030
Branch of Tagulaya River, "	"	9:55 a.m.	930
Toomcahling "		12:00 M.	1550.
House of sub-Datto where we turned down to the River,	June 16, 1904,	a.m.	1725
At the River	do	a.m.	1300
Where we left the River	do		1660
Todaya (house where we slept)	do	P.M.	3350
Todaya do	June 17, 1904, at	7:00 a.m.	3350
Highest cultivated fields above Todaya	do	a.m.	3500
Top of hill behind Datto Mungah's house	do	a.m.	3750
Thermal Spring	do	11:00 a.m.	4050
Reading on hillside	do	12:15 P.M.	4750
" above the little flat	do	P.M.	5260
Creek Crossing (water very cold)	do	P.M.	5275
Dr. Copeland's shack at Camp Goodfellow	do	1:40 P.M.	5600
Camp Goodfellow, June 22, 1904, at		7:00 a.m.	5700
Sulphur Vents "			7540
Highest trap (to right of crevasse)	June 22, 1904.		7750
Bulk of high traps, near Sulphur Vent	June 26, 1904		7600
Second Sulphur Vent	"		8100
Camp Goodfellow	"	2 P.M.	5830

Aneroid Readings, June 28, 1904:-

Camp Goodfellow,	6:45 a.m.	5710 feet
" "	6:00 P.M.	5900 "
Trap-box	7:15 a.m.	6200 "
Headquarters of Goodfellowia miranda (7 shot).		6250 "
Traps and Canyon,	7:40 a.m.	6575 "
Guides Rest, above step rocks,	8:30 a.m.	7240 "
"	4:00 P.M.	7400 "
File or "Brick Tablet"	8:45 a.m.	7450 "
" "	3:00 P.M.	7700 "
Small bowlder, fine view of Davao,		8100 "
Small steam-vent in trail		8800 "
E. Peak (shoulder) of Apo	10:00 a.m.	8900 "
" "	? P.M.	9000 "
On arrival at monument and bottle,	10:45 a.m. exactly	"Same" 9500 "
Same observation as above Middle or main peak	~~12:00 M.~~ 10:45 A.M.	observation: 9500 "
Laguna in Apo crater	12:00 M.	9250 "
Top of recent slide scar, on leaving peaks		9500 "
[Dr. C. B. Copeland's aneroid, April 20, 1904,		9080 "

On April 23, 1904, he noted: "Barometer dropped while here from 9320 to 9500.]

Aneroid Readings. June 30, 1904.

By Fletcher L. Keller.

	Hour.	Feet.
Camp Goodfellow	5:00 a.m.	5940
" "	2:20 ~~a~~ P.M.	6075
Grizzly's Rest.	7:15 a.m.	7425
" "	12:30 P.M.	7450
Tablet	7:40 a.m.	7650
"	12:00 M.	7750
East Spur of East Peak	10:00 a.m.	9050
Highest trap on right side of canyon	about ~~noon~~ 1:30?	7900

Aneroid Reading at , July 12, 1904.

(Thermometer, 71° F.) 6:00 P.M. 7800

Aneroid Readings,
July 1, 1904.

	Time.	Feet.
Camp Goodfellow	6:30 A.M.	5940
" "	6: P.M.	5940
Canyon and ~~Falls~~ traps	8: A.M.	6800
Guide's Rest	9: A.M.	7425
" "	4:15 P.M.	7525
Tablet	9:15 A.M.	7700
"	3:15 P.M.	7815
East Peak	10:15 A.M.	9080
" " (returning)	not marked ?	9160
Main Peak	11:15 A.M.	9640
" "	2: P.M.	9700
Crater Lake	1: P.M.	9400
~~N. Peak~~ Crater Lake	1:45 P.M.	9450
North Peak (The little rocky peak at N. extremity where I left record is 10 feet lower).	11:45 A.M.	9700
Middle Peak has 4 rocky hummocks:		
E. Point, nearest N. Peak	12:11 P.M.	9675
W. Point, close by	12:15 P.M.	9700 ?
Middle Peak	12:17 P.M.	9710
SE. Point } next to the crater pool	12:21 P.M.	9675
SW. Point } next to the crater pool	12:25 P.M.	9610
West Main Peak	12:38 P.M.	9655

Aneroid Readings,
July 5, 1904.

	Hour	feet.
Swan Goodfellowia miranda	7:00 a.m.	6300
Foot of Canyon and traps	7:30 a.m.	6700
Guide's Rest	8:15 a.m.	7350
Tablet	9:20 a.m.	7650
E. Spur of East Peak	10:45 a.m.	9025
East Peak	2:00 P.M.	9700
Valley between Middle and North peaks	4.00 P.M.	9650
Crater Lagoon	5:15 P.M.	9450
Apex (highest one) of Middle Peak (confluence of several rocky points)	5:45 P.M.	9775
(Sun sets) July 6, 1904.		
Camp at notch	5:30 a.m.	9740
W (="N") Peak at	6:00 a.m.	9825
Notch (camp)	7:00 a.m.	9720
East Peak Summit	7:20 a.m.	9800
East Spur of East Peak	8:30 a.m.	9220
Tablet	9:20 a.m.	7880
Guide's Rest	9:45 a.m.	7540
Foot of Canyon and traps	10:15 a.m.	6900
Camp Goodfellow	12: m.	5960

July 8, 1904. — Aneroid at 5:30 a.m. 6000 ft.
Thermometer " 5:30 a.m. 52° F.
Aneroid barometer " 12 m 6000 ft.
Thermometer at " 12 m 67° F.
Aneroid barometer " 2 P.M. 6050 ft.
Thermometer " 2 P.M. 66° F.
Aneroid barometer " 5 P.M. 6050 ft.
" " " 6 P.M. 6025 ft.
Thermometer " 6 P.M. 58° F.
" " 10 P.M. 6000 ft.

July 9, 1904. — Aneroid at 3 a.m. 6000 ft.
Thermometer " 3 a.m. 54° F.
Aneroid barometer " 6 a.m 6000 ft.
Thermometer at " 6 a.m. 53° F.
Aneroid barometer " 12 m. 6000 ft.
Thermometer (shade) " 12 m 67° F.
Thermometer (sun) " 12 m. 84° F.
Thermometer " 7:15 P.M. 55° F.
Aneroid barometer " 6:00 P.M. 6050 ft.

Datto Mung'-uh came up to Camp Goodfellow with his men to move us down to To-dy'-uh to-morrow.

Mount Abo Aneroid Readings.

Camp Goodfellow.	July 2, 1904,	at 3:00 P.M.	5950
" "	" 3, "	" 8:00 A.M.	5875
" "	" 3, "	" 6:00 P.M.	5930
" "	" 7, "	" 6:00 A.M.	6000
" "	" 7, "	" 12:00 M	6000
" "	" 7, "	" 9:30 P.M.	5900
" "	" 7, "	" 5:30 A.M.	6000
" "	" 8, "	" 12:00 M.	6000
" "	" 8, "	" 2:00 P.M.	6050
" "	" 8, "	" 5:00 P.M.	6050
" "	" 8, "	" 6:00 P.M.	6025
" "	" 8, "	" 10:00 P.M.	6000
" "	" 9, "	" 3:00 A.M.	6000
" "	" 9, "	" 6:00 A.M.	6000
" "	" 9, "	" 12:00 M	6000
" "	" 9, "	" 6:00 P.M.	6050
" "	" 10, "	" 6:00 A.M.	6000
1st Crossing of See-ree'-bahn River,		" 7:40 A.M.	5650
2nd " "	"	" 10:05 A.M.	5275
The tree-trunks lose their heavy coating of moss at See-brook'-ahn R.			5000
"At 9:20 A.M crossed the See-ree'-bahn Aneroid		Discrepancy? Perhaps a different route	4350"
Top of hill back of Datto Mung-uh's house, at		10:50 A.M.	4225
Foot of Todaya Hill		11:40 A.M.	3550

Mount Apo Aneroid Readings.

Datto Munguh's house at Todaya	July 10, 1904, at 12:00 m	3875
" " "	July 10, 1904, 6:30 P.M.	3850
do	July 11, 1904, 9:00 a.m.	3700
do	July 11, 1904, at ~~6:00~~ 7:30 P.M.	3800
do	July 12, 1904, at 6:30 a.m.	3780
do	July 12, 1904, at 6:00 P.M.	3800
do	July 13, 1904, at 6:00 a.m.	3800
Lowest house of Todaya Village	" 13, " " 7:20 a.m.	3000
Soo-boo-ahn River	" 13, " " 8:15 a.m.	2050
Sal-ooh-soó'-bahn River on reaching	" 13, " " 8:30 a.m.	2025
do on leaving	" 13, " " 9:50 a.m.	1730
Old Practico's house at top of hill	" 13 " " ? a.m.	2140
Toon cabling, Datto Ali's house	" 13 " " 10:45 a.m.	2000
Bahr-ah-cuh'-ton River	" 13 " " 1:45 P.M.	1400
Top of hill at point of cogonal	" 13 " " 2:20 P.M.	1520
Tagulaya (mountain aneroid)	" 13 " " 4:30 P.M.	480
" check	" " 13 " " 4:30 P.M.	150
" mountain	" " 13, " 10:00 P.M.	325
" check	" " 13, " 10:00 P.M.	80
" mountain	" " 14, " 6:00 P.M.	350
" check	" " 14, " 6:00 P.M.	100
" mountain	" " 15, " 7:00 a.m.	300
" check	" " 15, " ~~2:00~~ 7:00 a.m.	140

Mount Apo Aneroid Readings.

Tagulaya July 15, 1904. Mountain aneroid. at 12:00 m. 375

" July 15, 1904. Check " " 12:00 m. 140

1904
June

12	16
13	17
5	6
12	6
14	18
8	1
12	17
8	16
12	17
4	2
3	17
12	6
4	15
8	15
12	17
1	15
8	18
11	19
8	20
12	20
4	20
8	17

Thermometer readings on Mount Apo.

Datto Mungah's house at Todaya, at	July 10, 1904	5:00 a.m.	71
do	July 11, 1904,	9:00 a.m.	80
do	July 11, 1904,	6:00 P.M.	78
do	July 11, 1904,	7:30 P.M.	78
do	July 12, 1904,	6:30 a.m.	65
do	July 12, 1904,	6:00 P.M.	71
do	July 13, 1904,	6:00 a.m.	65
Lowest house of Todaya Village	" 13, " ,	7:20 a.m.	74
Soo-bu-ahn River	" 13, " ,	8:15 a.m.	76
do	" water 13 " ,	8:20 a.m.	lost
End of trail in Canyon of Sal-ooh-soo-bahn River	13 " ,	9:50 a.m.	air 79 water 69
do	13 " ,	9:50 a.m.	
Datto Ali's house at Tooncahling	" 13 " ,	10:45 a.m.	83
Bahr-ah-euh'-ton River	" 13 " ,	1:45 P.M.	83
Tagulaya	" 13 "	4:30 P.M.	84
"	" 13 "	10:00 P.M.	78
"	" 14 "	6:00 P.M.	82
"	" 15 "	7:00 a.m.	75
"	" 15 "	12:00 m.	83

Thermometric readings on Mount Apo.

July 1, 1904, 6 P.M. = 62°
" 2, " , 5:30 a.m. = 51
" 2, " , 12 M. = 64
" 2, " , 6 P.M. = 62
" 2, " , 10:30 P.M. = 54
" 3, " , 5:50 a.m = 54
" 3, " , 12 M. = 64
" 3, " , 6 P.M. = 63
" 3, " , 9:15 P.M. = 56
" 3, " , 11:15 P.M. = 55
" 4 " , 12:02 a.m. = 54
" 4 " , 6:00 a.m. = 49
" 4 " , 8:30 a.m. = 57
" 4 " , 12 M. = 64
" 4 " , 3 P.M. = 65½
" 4 " , 6 P.M. = 59½
" 4 " , 8:30 P.M. = 58
" 5 " , 12:01 A.M. = 55
" 5 " , 6 a.m. = 52
" 6 " , 6 P.M. = 62
" 7 " , 12:01 a.m. = 54
" 7 " , 5 a.m. = 53
" 7 " , 6:00 P.M = 59
" 7 " , 9:30 P.M = 57

July 4, 1904. Shade temperature of See-reé-bon River water 64
" " Spring water at Camp Goodfellow 57½
July 8, 1904, 5:30 a.m. 52
" 8, " , 12:00 M. 67
" 8, " , 2:00 P.M. 66
" 9, " , 3:00 a.m. 54
" 9, " , 6:00 a.m. 53
" 9, " , 12:00 M (shade) 67
" 9, " , 12:00 M. (Sun) 84
" 9, " , 7:15 P.M. 55
" 10, " , 6:00 a.m. 51
" 10, " Water of Thermal Spring Just before 9:00 a.m. 120+
" 10, " " " Tahu'-bō River Just before 9:00 a.m. 70
" 10 " Air temperature at Thermal Spring Just before 9:00 a.m. 69
" 10 " Water 2d crossing Tahu'-bō River Just before 9:00 a.m. 71
" 10 " At 9:20 a.m. crossed the See-reé-bon River, the water having the temperature 65
" 10 " Top of hill back of Datto Munguhi's house at 10:50 a.m. 76
" 10 " Foot of Sodaya Hill 11:40 a.m. 80
" 10 " Datto Munguhi's 12: M. 83
" 10 " " " 6:30 P.M. 71
" 10 " " " 7:30 P.M. 68

Mount Apo. Thermometer Readings.

July 5, 1904:—	Hour.	Degrees, Farenheit.
Canyon and traps	7:45 a.m.	64
Tablet	9:20 a.m.	70
East Spur of East Peak	10:45 a.m.	62
East Peak	2:00 P.M.	57
Notch between North and Middle Peaks	4:00 P.M.	52
West Peak	5:00 P.M.	50
Air temperature at Crater Lagoon	5:13 P.M.	49
Water temperature of Crater Lagoon	5:23 P.M.	54
Highest point of Middle Peak	5:45 P.M.	45
Camp in notch	6:00 P.M.	46
do	7:00 P.M.	44
do	12:00 Midnight	43
July 6, 1904:—		
do	3:00 a.m.	42
do	5:00 a.m.	41
do	5:30 a.m.	44
Summit of West Peak	6:00 a.m.	48
Air temperature at camp (shade)	6:30 a.m.	48
Water temperature at camp (20 minutes)	6:55 a.m.	47
East Peak	7:20 a.m.	50
East Spur of East Peak	8:30 a.m.	55
Tablet	9:20 a.m.	61
Guide's Rest	9:45 a.m.	64
Foot of Canyon and traps	10:15 a.m.	75

20

ABSTRACT OF MEDICAL PROPERTY—Continued.

All Checked

NO. VOUCHERS.	ADDITIONAL ARTICLES.	TOTAL CARRIED FORWARD FROM PAGE	TOTAL

3—III.

1st Feb. 22nd. 1882 Otto Koch and Dr. Flepr. Schadenberg
2d. Feb. 14th 1884 D Burk.
3d. June 20 1900 " Chas. O Thomas jr. 1st. Lieut. Co. D. Vol. Inf.
" " " A. Phelps Whitmarsh,
4th. May 1903 C.L. Hoover Lincoln Neb.
" " D.F. Devore Marysville, Calif.
5th April 20th. 1904 C.B. Copeland Sierra Club of San-Francisco
Bureau of Govt. Manila, Aneroid reading 9080 ft
visited neighboring crests & built monuments on them
nearest. 1505 of N. E. B. L.
April 23d here again wind awful, thunder below can't
see 20 yd. Barometer dropped while here from 9 to 9
June 26 1904 aneroid reading 9500 ft. exactly, Ed A. Nearns
Fletcher L. Keller Grant Neb.

All Checked

ABSTRACT OF MEDICAL PROPERTY—Continued.

3—1111

ARTICLES.	TOTAL CARRIED FORWARD FROM PAGE	NO. VOUCHERS.	TOTAL.
MEDICINES—Continued.			
Sinapis nigra (pulvis), in 500-gm. tins ...... tins.			
Sodii bicarbonas, in 500-gm. bottles ...... botts.			
Sodii bicarbonas, 324-mgm. tablets (200 in bottle), for field use only ...... botts.			
Sodii bicarb. et menthæ pip. (tablets), (250 in bottle) ...... botts.			
Sodii boras (pulvis), in 500-gm. bottles ...... botts.			
Sodii bromidum, in 250-gm. bottles ...... botts.			
Sodii hyposulphis, in 250-gm. bottles ...... botts.			
Sodii phosphas, in 100-gm. bottles ...... botts.			
Sodii salicylas, in 500-gm. bottles ...... botts.			
Sodii salicylas, 324-mgm. tablets (200 in bottle) ...... botts.			
Strophanthi tinctura, in 100-c. c. bottles ...... botts.			
Strychninæ sulphas, 1-mgm. tablets (500 in bottle) ...... botts.			
Sulphonal, 324-mgm. tablets (200 in bottle) ...... botts.			
Sulphur lotum, in 250-gm. bottles ...... botts.			
Terebenum, in 250-c. c. bottles ...... botts.			
Thymol, in 25-gm. bottles ...... botts.			
Tolutanum balsamum, in 250-gm. tins ...... tins.			
Valerianæ extractum fluidum, in 250-c. c. bottles ...... botts.			
Veratri viridis tinctura, in 100-c. c. bottles ...... botts.			
Zinci oxidum, in 250-gm. bottles ...... botts.			
Zinci sulphas, in 500-gm. bottles ...... botts.			
Zinci sulphas, 324-mgm. tablets (100 in bottle), for field use only ...... botts.			
Zingiberis extractum fluidum, in 250-c. c. bottles ...... botts.			
ANTISEPTICS AND DISINFECTANTS.			
Acid, carbolic, crude, in 1-kilo. bottles ...... botts.			
Antiseptic tablets (200 in bottle) ...... botts.			
Iron sulphate, commercial, in 10-kilo. boxes ...... boxes.			
Lime, chloride, in 500-gm. w. m. bottles ...... botts.			
Mercury, corrosive chloride, in 500-gm. botts ...... botts.			
Soda, chlorinated solution (6 per cent available chlorine), in 1-liter bottles ...... botts.			
Sulphur, in roll ...... kilos.			
Tricresol, in 1-kilo. bottles ...... botts.			
HOSPITAL STORES.			
Beef extract, in 100-gm. tins or jars ...... tins.			
Brandy, in 1-liter bottles ...... botts.			
Soap, Castile or its equivalent ...... kilos.			
Soap, common ...... kilos.			
Sugar, white, in 6-kilo. tins ...... tins.			
Whisky, in 1-liter bottles ...... botts.			
MICROSCOPICAL ACCESSORIES.			
Agar-agar, in 500-gm. packages ...... pkgs.			
Alcohol, absolute, in 250-c. c. g. s. bottles ...... botts.			
Aniline oil, in 125-c. c. bottles ...... botts.			
Balsam bottle ...... no.			
Bismarck brown, in 4-gm. bottles ...... botts.			
Canada balsam, in 30-c. c. bottles ...... botts.			
Carmine, in 15-gm. bottles ...... botts.			
Eosin, in 15-gm. bottles ...... botts.			
Fuchsin, in 15-gm. bottles ...... botts.			
Gelatin, in 60-gm. packages ...... pkgs.			
Gentian violet, in 15-gm. bottles ...... botts.			
Glass covers, 16 or 19 mm. square ...... gms.			
Glass slides, 25 x 75 mm ...... doz.			
Hæmatoxylon, in 8-gm. bottles ...... botts.			
Methylene blue, in 15-gm. bottles ...... botts.			
Oil of cedar, in 30-c. c. bottles ...... botts.			
Peptone, in 250-gm. w. m. bottles ...... botts.			
Paraffin, in 250-gm. cakes ...... cakes.			
Xylenum, in 250-c. c. bottles ...... botts.			
STATIONERY.			
Baskets, letter ...... no.			
Baskets, waste-paper ...... no.			
Blank books, cap, 4-quire ...... no.			
Blank books, 8mo., 4-quire ...... no.			

UNICA

ESPEDICION AAJAL

June 20, 1904
W. A. Barrell

May 7, 1903 = 9 a.m.
B. F. DeVore

10 OBTURHE 1880

Readings during Retreat.

Left Fangwe at 11 a.m. May 10. 06.

Time	Compass	Barom.	Remarks
10 m.	E 20.	25	Passing through Fangwe.
5 m.	S 40	25	Left of Cart. Cross of Fangwe
5 m.	S 00	25	Hemp Trees.
5 m.	S 50	50	Hemp
10 m.	S 60	50.	crossing Fangwe River, sept. 300
5 m.	S 50	75	Grass
10 m.	S 00	125	Grass
10 m.	S 20	150	crossing dry creek. 100 yards.
5 m.	S 80	200	Hemp Trees.
5 m.	S 40	250	"
10 m.	S 00	350	"
10 m.	S 00	500.	through Woods and Patches of Hemp trees.
10 m.	S 60	650	" "
5 m.	S 00	700	crossing Mhaiding River 70 yds. sept.
5 m.	S 40	800	through Woods
5 m.	S 40	850	through Hemp trees for 1 mile
10 m.	S 30	950	crossing dry Nullah. 100 yards.
5 m.	S 40	1050.	Hemp trees crossing dry Nullah
10 m.	S 40	1150	Arrived Calengaee.

Left Cadogan. 8.15 a.m. May 26 cc.

Time	Compass	Travel.	Remarks.
30m	240	1400	Strong & bright Grass and Woods.
5m.	245	1350	high woods. 275 yards in 5 min.
5m.	270	1350.	following my road. Ravine. 300 yards.
10m.	320	1500	after leaving trail through Woods.
10m	250	1400	Descend to Deep Ravine to left 50-75 ft.
10m.	290	1500.	left Ravine. through Woods.
10m.	360	1700	following Malady River 60' wide
10m.	70	1850	ascending Ridge through Woods.
10m	340	1950	through Wood deep Gorge to Rail
5m.	326	2100	through Woods. road trail
10m	300	2350	" 250 yards in 5 min
10m	290	2450	"
10m	340	2550	" 250 yards in 5 min.
10m	350	2700	"
10m	340	2850	"
10m	340	3000	" 260 yards in 5 m.
10m.	10	3100.	"
10m	330.	3250	"
10m.	350	3400	" 250 yards in 5 m.
5m	310.	3500	"
5m	360.	3600	"
5m	340.	3700	" 250 yards in 5 m.
15m	350.	4000	emerging. covered with Woods
20m.	320.	4300	Deep Ravine. Large Ferns. Woods.
5m	340	4400	Steep Gorge 26 W. slope - 45°.
10m	350	4600	265 yards in 5 min.

Time	Compass	Feet	
10m	360	4800	2 [illegible] 5 feet in 5m.
10m	40	5000	from [illegible] over Ridge.
15m	360	5300	Trees [illegible]
20m	340	5600	225 feet in 5 min.
15m	300	5750	Summit at Point of Mt. Bliss 50' x 100'
10m	300	5600	descending to Ridge.
5m	330	5500	Following along Ridge 20 ft wide.
10m	290	5300	" "
15m	300	5500	" 300 feet in 5 min.
10m	260	5600	ascending to Mt. Bliss
5m.	240	5700	175 feet in 5 min.
5m	250	5750	at Summit of Mt Bliss. 75' x 300'

Start. Mt Bliss 12, 10 Pm. June 1, 06

3m.	30°	5760	from Camp to northern slope of Peak.
10m.	360°	5500	descending over hogback
10m	340°	5250	" "
5m.	310	5000	250 feet in 5 min.
10m	300	4900	following Ridge of Devils
5m	270	4800	
10m	320	4800	
10m	290	4800	over Devils.
5m	340	4800	over Devils.
5m	30	4700	Descending down to Bliss River
10m	60	4450	200 feet in 5 m.
10m	70	4200	

Time	Compass	Barom.	Remarks.
5m	30	4100	Ascending to Bliss River.
10m	60	3900	
5m	70	3800	200 Yards in 6 min.
10m	60	3600	Arrived at Bliss River
5m	80	3550	following rocky bed of River 20-50' wide
10m	40	3450	high trees and fern. 225 Yds in 5 min.
10m	70	3300	
5m	100	3200	
10m	40	3300	left River to cross over divide to Malindang R.
5m	340	3400	225 Yards in 5 min.
5m	50	3500	
10m	90	3700	following Ridge, leading over Divide.
15m	360	4000	" "
20m	340	4400	" "
10m	350	4550	200 Yards in 5 m.
25m	360	4900	Peak of Ridge.
15m	270	4700	Descending from highest Point of Ridge.
5m	270	4600	along top of Ridge.
30	340	4200	Descending to Malindang River
30	360	3800	Gorge. arr at Bottom and west into Camp. River 50-75' wide running 55° nearly but much Water

(5)

Sheet [illegible] Malinbong River [illegible] June 5th

Time	[illegible]	[illegible]	Remarks.
1 min	290	3950	following [illegible] bed of Malinbong River bed 50 to 75 feet wide
10m	310	4050	
2m	360	4200	250 yards in 5 min
5m	360	4250	
10m	40	4350	continuous small rapids.
5m	340	4400	250 yards in 5 m.
5m	270	4450	beautiful foliage. Tree Ferns.
10m	320	4500	great numerous.
10m	360	4550	Tributary from 270°.
15m	340	4650	
15m	20	4750	
10m	60	4850	
10m	360	4900	Tributary entering Malina R. 300°
10m	20	4950	Tributary entering Mal. R 20° over 50' fall
10m	310	5050	Tributary 20. over 50 ft fall
10m	360	5700	Small Tributary 270° 20 ft fall
10m	20	5200	240 yards in 5 min.
10m.	300	5250	
10m.	320	5300	Small Tributary from 60°
15m	300	5400	
5m.	270	5450	Small Falls 20' high.
5m	320	5500	Malinbong River branches 330° 250°
15m	330.	5600	Raspberry Creek. 10 - 15 ft wide.
10m.	340.	5700	just before Falls 50 ft high. Ascended to [illegible] Ridge.

Time	Compass.	Baron.	Remarks.
20m	S 60.	5950	Steep climb. over rough country.
15m.	S 50.	6050	climbing Ridge 150 feet in 5m.
5m.	S 60	6100.	Reach intro Camp. Mc Murray Flats.

Start. Mc Murray. Flats. June 4. 06. 9 a m.

20m.	S 40.	Clinometer Readings from + 40° - 46°
1h. 10m	S 60.	average rate of 2100' in 5 min.

Arrived on Summit. Elevation according observations by Barometer and Clinometer from Mt Bliss and Mc Murray Flats.

9200 feet.

May 27.06

6 a.m. 64°. 12 m. 69°. 6 P.m. 64°. Smoke haze. clear

May 28.06

6 a.m. 55°. 12 m. 70°. 6 P.m. 45°. Smoke haze. clear

May 29.06

6 a.m. 61. 12 m. 67°. 6 P.m. 61°. clear. very clear.

May 30.06

6 a.m. 58°. 12 m. 65°. 6 P.m. [illegible]. clear

May 31.06

6 a.m. 51°. 12 m. 67°. 6 P.m. 52°. clear. clear

June 1.06

6 a.m. 61°. 12 m. 67°. clear.

Readings at Top of Grand Moulinet

June 4.06

12 m. 57°. 6 P.m. 53°.

June 5.06

6 a.m. 55°. 12 m. 58°. 6 P.m. 54°. clear. very clear.

June 6.06

6 a.m. 53°. 12 m. 58°. 6 P.m. 52°. clear. very clear.

June 7.06

6 a.m. 49°. clear.

Elev 6750'

Ground Mountains.

June 4.06 162. - 6° 12 miles.

Mt Williams.

June 4.06 170 -6°50 7 miles.

Date	Compass Course	estimated distance
		Pinhook
June 4.06	188° - 6°10'	5 miles
		Pair West.
June 4.06	238° - 1°20'	30 miles.
		Wash.
June 4.06	200° - 3°	1½ mile.
		Mountain Marauder.
June 5.06.	64° - 2°	6 miles.
		[illegible]
	352 - 1°30'	about 80 miles.
		[illegible]
	120° - [illegible]	[illegible]
		Wall Placular.
	126° - 7°30'	4 miles.
		Flat Top Mountain.
	80° - 12°10'	3 miles.
		Wall Eshmellan.
	350° - 2°10'	6 miles.
		Coast Range.
	16° - 3°	8 miles.
		Wall Van Allen.
	216° - 8°40'	3 miles.
		Wall West.
	240° - 5°20'	2½ miles.

Date.	Compass	Clinom.	B	estimated Distance
	Mt. Mat.			
June 13.0[illegible]	250°.	− 9°50.	2½ miles.	~~78~~[illegible]
	Reading from Port at Missions to Peak			
	285°.	+ 5°	[illegible]	20. Miles

Barometer and Thermometer Readings.

Date	Time	Thermo	Barometer.
	The Murray Flats.		
June. 6. 06.	8 am.	60.	6050.
	12 m.	62.	6100.
	6 Pm.	60.	6075
June 7. 06.	8 am.	60	6075
	12 m.	63.	6100
	6 Pm.	60	6075
June 8 06.	6 am.	57.	6100.
	Mt Bliss		
June 8. 06	2 Pm.	70°	5750.
June 9. 06.	6 am.	59°	5700
June.	10[45] am.	70°.	5825
	At Catagan.		
June 9. 06.	6 Pm.	77.	1160
June 10. 06	6 am.	73.	1100.
	12 m.	82	1150.
	6 Pm.	78	1175
June 11	6 am.	72	1100.
	Tangob. ([illegible]) 25' Ela		
June. 11.	12 m.	84	50
	Misamis (Fort 40' Elev.)		
June 11.	6 P.m.	84	100
June 12	6 am	75	30
	12 m	89	70.
June 13.	6 am.	[illegible]. 20' Elev. 75	25.